



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,751	07/15/2003	Maria Ronay	20140-00296-US2; YOR92002	6935
30678	7590	11/07/2005	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ LLP SUITE 800 1990 M STREET NW WASHINGTON, DC 20036-3425			RACHUBA, MAURINA T	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,751

Applicant(s)

RONAY, MARIA

Examiner

M Rachuba

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 20-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/3/05</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: ____.</p> |
|---|--|

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 6, 8, and 20-22 are finally rejected under 35 U.S.C. 102(b) as being clearly anticipated by Molnar US006283829B1. Please refer especially to column 22, lines 65 through column 23, lines 50, for a discussion of the polishing slurry and its components; and to column 28, lines 5 through column 30, lines 4, for a discussion of the preferred types of lubricant, including poly (tetrafluoroethylene) (Teflon^(R)) in particulate form. Poly (tetrafluoroethylene) has a coefficient of friction of about 0.03 to about 0.3 (please refer to the chart enclosed with the previous Office action).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Molnar '829. '829 does not disclose the size or percentage by weight of the abrasive particles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided '829 with the required sizes and amounts of the abrasive particles, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves

only routine skill in the art. In re Aller, 105 USPQ 233. Here, the relative sizes and amounts of the particles in the slurry would depend on the type, thickness and desired material removal of the material being planarized.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Molnar '829 in view of Chang et al 2003/0211743 (filed May 7, 2002). '829 does not disclose that a surfactant may be added to the slurry. '743, in a slurry for CMP applications, teaches that it is old and well known to use surfactants in CMP slurries, to maintain slurry particle dispersion. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided '829 with a surfactant as taught by '743, [007] lines 12-14, to maintain particle dispersion.

Response to Arguments

6. Applicant's arguments filed 03 October 2005 have been fully considered but they are not persuasive. Applicant argues that Molnar does not disclose using lubricant with polishing pads that are free of abrasive, nor does Molnar specify the amount of lubricant used. The examiner strongly disagrees. Molnar, column 28, lines 5-16 states: "Supplying a lubricant to the interface of the workpiece surface being finished and the finishing element finishing surface wherein the lubricant is from 0.1 to 15% by weight of the total fluid between the interface is preferred and from 0.2 to 12% by weight of the total fluid between the interface is more preferred and from 0.3 to 12% by weight of the total fluid between the interface is even more preferred and from 0.3 to 9% by weight of the total fluid between the interface is even more particularly preferred." Further, Molnar, column 15, lines 64 through column 21, lines 65, gives

examples of both fixed abrasive polishing pads and polishing pads that are free from abrasive. The lubricant can be part of the finishing composition, see column 28, lines 56-60. Applicant also argues that Molnar prefers using slurries that are free of abrasive particles. It is noted that Molnar discloses several embodiments, some are preferred, but all are considered prior art. MPEP 2123 states in part:

Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In *re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use."

In *re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994).

Here, Molnar discloses that the polishing pad may be free of abrasive particles, that the abrasive particles are part of the finishing composition, and that the lubricant is from 0.1 to 15% by weight of the fluid supplied between the interface of the wafer and pad.

It is the examiner's position that Molnar anticipates applicant's claimed invention as set forth in claims 1, 2, 4, 6, 8, and 20-22.

7. Regarding applicant's argument concerning the rejection of claim 9, applicant only argues that "claim 9 is patentable for at least those reasons as to why claim 1 is patentable". Claim 1 is not patentable over Molnar, and applicant did not argue the combination of Molnar in view of Chang. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of

references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

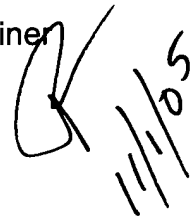
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Rachuba whose telephone number is 571-272-4493. The examiner can normally be reached on Monday-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M Rachuba
Primary Examiner
Art Unit 3723

Handwritten signature and date 11/1/05.